THE IMPACT OF TAKEOVERS ON THE WEALTH OF SHAREHOLDERS OF BIDDING FIRMS: THE HONG KONG EXPERIENCE

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ABSTRACT

In recent years, corporation takeovers became popular in Hong Kong. Nevertheless, there are few empirical studies concerning takeovers in Hong Kong. This study, using data for the period between 1985 and 1991, investigates Hong Kong takeovers and tests their impact on stock returns of the bidding firms. The results show that bidding firms earn significant gain from takeovers. It suggests that the hypothesis that no daily abnormal returns for the bidding firms around the time of announcement cannot be rejected.

TABLE OF CONTENTS

CHAPTER I

INTRODUCTION AND OBJECTIVE

Introduction

In recent years, takeover activities have spread over the world, particularly in major financial centres such as the United States, United Kingdom and Japan. In late 1980s, corporation takeovers became popular in Hong Kong. Between 1986 and 1992, a total of 141 takeover bids were launched among listed companies in Hong Kong, with 97.8% of these bids successful.

More companies are willing to take over other business in order to take potential gains such as synergies and diversification, monopoly power, elimination of inferior management and financial synergies.

Takeovers can occur through merger, tender offers, or proxy contests, and sometimes a combination of the three.

Both tender offers and merger proposals involve offer to purchase the targets' shares at a price above the pre-proposal market price.

A merger occurs when two firms combine their operations, the result being that only one firm exists. Moreover, mergers usually are negotiated by the management of the two firms. Thus, the merger proposal must be approved by the board of directors of the target firm which then puts the proposal to a stockholder vote.

In tender offers, the management of the bidder makes a direct appeal to the shareholders of the target firm for their shares. The target and bidding firms will still exist after tender offers. Tender offers can be friendly or hostile. Friendly tender offers refer to offers that are supported by the target management. Hostile tender offers refer to offers that are opposed by the target management.

A proxy contest occurs when an insurgent group, often led by a dissatisfied former manager or a large stockholder, attempts to gain controlling seats on the board of directors.

While many research on the United States and United Kingdom takeovers have been carried out previously, empirical research on takeovers in Hong Kong is missing in the literature. Research on takeovers has generally shown that corporate takeovers generate substantial abnormal returns to the shareholders of the target firms. However, previous evidence suggests that the abnormal returns to successful bidding firms in tender offers are positive and in mergers are zero. In sum, recent studies show that the impact of takeovers on the shareholders of a bidding firm is mixed.

Objective

The primary objective of this paper is to examine the impact of takeovers on the stock returns of bidding firms. It is expected that this study will provide a deeper

insight into the stock price movements of bidding firms around takeover announcement in the Hong Kong stock market. We hoped that our study will be helpful to investors, managers and other participating bodies in takeovers through a more thorough understanding of the takeover phenomenon.

CHAPTER II

LITERATURE REVIEW

Rationale for Takeovers

There are many reasons for takeovers. In fact, there may be more than one reason involved in a particular incidence of takeover activity. In this section, the current theories concerning takeovers will be discussed. Generally, these theories are classified into two mainstreams. The first category of theories try to explain the takeover phenomenon from the shareholders' standpoint. These theories include efficiency theories, diversification, market power theory, financial motivations and undervalued target theory. Another group of theories, on the other hand, investigate the takeover phenomenon using theory of agency problem.

From the shareholders' standpoint

Efficiency theories

Under the differential theory, if the management of a firm is more efficient than the management of another firm, and if the former acquires the latter, the efficiency of the acquired firm is brought up to the level of efficiency of the acquiring firm. Efficiency is increased by takeover.

The inefficiency management theory implies that the

management of the target firm is not performing up to its potential. Assets of a target firm can be managed more effectively by the better performing bidding firm and therefore this provides a rationale for takeovers.

Efficiency theories also include the possibility of achieving some form of synergy. A takeover can achieve "synergy" by combining two firms. The idea is to concentrate a greater volume of activity into given resources. Synergies could occur through realization of economies of scale, vertical integration, adoption of more efficient production or organizational technology, increased utilization of the bidder's management team, and reduction of agency costs by bringing organization-specific assets under common ownership [Chandler (1962, 1977), Williamson (1975, 1981), Bradley, Desai and Kim (1982)].

Diversification

Company can diversify its business into different, unrelated kinds of business in order to obtain greater stability on earnings through spreading activities in different industries with different business cycles or to diversify out of a static or sunset industry. However, the free cash flows theory claims that diversification programs will generate lower total gains in takeovers [Jensen (1986)]. Jensen states that "in declining industries, mergers within the industry are likely to be low- or even negative-return projects[1]." Details of free cash flows

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[1] M. C. Jensen, 1988, 329.

theory will be discussed later. Therefore, if a company is engaged in takeover for the sake of diversification, it is doubtful if the bidding firm will benefit from the takeover.

Market power theory

Acquiring competitors is the easiest way for a firm to obtain an increase in market share of an industry. The market power hypothesis implies that mergers increase product prices thereby benefiting the merging firms and other competing firms in the industry. However, Stillmen (1983) and Eckbo (1983), which use the equity price changes of firms that compete in product markets with the merged target to reject the hypothesis that takeovers create market power[2].

Financial motivations

Financial motivations for acquisitions include the use of underutilized tax shields, avoidance of bankruptcy costs, increased leverage, and other types of tax advantages. For instance, an acquiring firm can substitute its capital gains taxes for ordinary income taxes by acquiring a growth firm with a small or no dividend payout and then selling it to realize capital gains. However, most recent studies says that tax benefit is not a major reason for takeovers[3].

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[2] Jensen and Ruback, 1983, 20-21.

[3] Jarrell, Brickley, Netter, 1988, 56.

Undervalued target theory

The theory states that because a target is undervalued by the market and therefore a bidder can offer substantial premiums for the target firm while still paying below its intrinsic value. However, Jarrell, Brickley, and Netter opposes to this argument and claims that "if undervaluation of target had indeed been present, then the deluge of new information on the intrinsic value of targets should have caused fundamental price corrections even in the event of takeover defeats. But in the overwhelming majority of cases studied, prices dropped rather than increased for target firms that fought off takeovers[4].

From the managers' standpoint

Agency problems

Agency problems arise because managers own only a fraction of the shares of a firm. This may lead managers to work less efficiently or to consume more perquisites because the majority owners bear most of the cost. In large corporations the individual shareholders with small holdings do not have sufficient incentive or resources to monitor effectively the activities of managers.

The agency problem of takeovers has two aspects. The threat of takeover by a firm is a monitoring device that will cause the managers to act more closely with the shareholders' interests. Alternatively, takeovers may be a result of the agency problem rather than the solution.

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[4] Jarrell, Brickley, and Netter, 1988, 49.

Managerialism theory

The managerialism theory argues that takeovers take place to increase the size of a bidding firm because the compensation of a manager is often based on the size of the firm [Mueller 1969]. However, Lewellen and Huntsman (1970) finds that a manager's compensation is significantly correlated with the firm's profit rate but not the sales of the firm. Thus, Mueller's argument is doubtful.

Hubris hypothesis

Roll (1986) argued that, on average, takeovers involve a transfer of wealth from shareholders of bidding firms to shareholders of target firms. Hubris hypothesis is the explanation for the takeover phenomenon provided by Roll. Hubris is a Greek word meaning "animal spirits," with connotations of excess pride. Hubris hypothesis says that bidders infected by hubris simply pay too much over their target and transfers virtually all potential takeover premium to the target shareholders. This phenomenon describing an acquiring firm's overbidding for its target is called "winner's curse".

Free cash flows theory

Free cash flow is cash flow in excess of that required to fund all projects that have positive net present values when discounted at the relevant cost of capital. Jensen (1988) states that managers endowed with free cash flow will invest it in negative net present value projects

rather than pay it out to shareholders. He argues that management perquisites increase with investments in operations even when these investments have a negative net present value. Agency problems arise and acquisitions are a means of spending cash instead of paying it out to shareholders. Therefore, the theory implies that managers of firms with unused borrowing power and large free cash flows are more likely to undertake low-benefit or even value-destroying takeovers and diversification programs generally fit with this category.

Hubris hypothesis is consistent with free cash flows hypothesis because management of a firm with large free cash flows is more likely to be infected by hubris and engage in value decreasing takeovers. In sum, Roll (1986) and Jensen (1986) support that takeover is a manifestation of agency problem i.e. managers act against shareholders' interests and overpay for the targets.

Empirical Literature Review

Overview

Numerous studies have been done to find out the effects of various takeover activities on the stock prices of the participating firms around the time of announcement of takeover proposals. Early event studies of takeover, including Mandelker (1974), Ellert (1976) and Langtieg (1978), analyze the effect around the effective date of merger which is the date of final approval by target shareholders. However, according to Dodd (1977), accurate

estimation of the market response to mergers requires use of the date of the first public announcement of the proposal. Typically a public announcement of negotiations and proposed terms is made well before the date of final approval. It is this earlier date that is of critical importance in studying market reactions. By the date of final approval of the takeover, much of the information of the merger has been released. Thus, our study will focus on the review of event studies of takeovers followed by Dodd (1977).

Jensen and Ruback (1983) summarizes the results of the studies in the 1970's and the early 1980's. In tables 1 & 2, Jensen & Ruback summarize stock price changes (net of market price movement) for both bidding and target firms for successful and unsuccessful takeovers in these studies.

Table 1

Abnormal percentage stock price changes associated with successful corporate takeovers.[a]

Takeover technique	Targets (%)	Bidders (%)
Tender offers	30	4
Mergers	20	0
Proxy contests	8	not applicable

Source: M. C. Jensen, and R. S. Ruback (1983), " The Market for Corporate Control: The Scientific Evidence", *Journal of Financial Economics 11*, 5-50.

a. Abnormal price changes are price changes adjusted to eliminate the effects of marketwise price changes.

Table 2

Abnormal percentage stock price changes associated with unsuccessful corporate takeover bids.[a]

Takeover technique	Targets (%)	Bidders (%)
Tender offers	-3	-1
Mergers	-3	-5
Proxy contests	8	not applicable

Source: M. C. Jensen, and R. S. Ruback (1983), " The Market for Corporate Control: The Scientific Evidence", *Journal of Financial Economics 11*, 5-50.

a. Abnormal price changes are price changes adjusted to eliminate the effects of marketwise price changes.

Table 1 shows that target firms earn significant positive abnormal stock price changes of 20% in mergers and 30% in tender offers. Bidder firms of successful tender offers earn a statistically significantly positive average abnormal returns of 4% an zero in mergers. Table 2 shows that both targets and bidders suffer small negative abnormal stock price changes in unsuccessful mergers and tender offers. In the followings, the stockholders' returns of both target and bidding firms, in which takeover event is arranged by tender offers and mergers, will be discussed in details.

Target Firm Stockholder Returns

Successful target returns

Past studies support that shareholders of target firm benefits from takeovers. Jarrell and Poulsen (1987a) finds that target firms of successful tender offers earn an average of 19 percent in the 1960s, 35 percent in the 1970s, and 30 percent for the period between 1980 to 1985. The result is consistent with the 13 studies of pre-1980 data contained in Jensen & Ruback (1983) which agrees that targets of successful tender offers and mergers before 1980 earned positive and significant abnormal returns (See table 1).

Unsuccessful target returns

Targets of unsuccessful tender offers earn a significantly positive weighted average abnormal returns of

35.2% on the offer announcement. However, targets of unsuccessful tender offers that do not receive additional offers in the next two years lose all previous takeover premiums. Targets of unsuccessful mergers earn a weighted average one-month abnormal returns of 17.2%. However, targets of unsuccessful mergers earn a negative of -2.9% which is estimated from the initial announcement through the outcome date. Therefore, all the announcement gains are lost by the time failure of the offer becomes known [Jensen & Ruback (1983)].

Bidding Firm Stockholder Returns

Successful bidder returns

There is empirical evidence that corporate acquisitions by tender offers provide significant and positive abnormal returns to the stockholders of both the target and the acquiring firm [Dodd and Ruback (1977), Bradley (1980), and Bradley, Desai and Kim (1982)].

However, empirical research on mergers has found that bidding firms pay large premiums for target firms. Dodd (1980), Firth (1980), and Varaiya (1985) find that shareholders of bidding firms lose a small significant amount from the announcement of a merger bid. Asquith (1983) finds that bidding firm shares show "no consistent pattern" around the announcement date, but "in summary, bidding firms appear to have small but insignificant positive excess returns at the press day[5]."

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[5] Asquith P, 1983, 66.

Jensen and Ruback interpret the articles and conclude that "in brief, the evidence seems to indicate that corporate takeovers generate gains, that target firm shareholders benefits, and that bidding firm shareholders do not lose[6]." However, in a review of more recent research, Jarrell and Poulsen (1987a) finds an apparent secular decline in the gains to successful bidders in tender offers. Table 3 summarizes the result of Jarrell and Poulsen (1987a).

Table 3

Cumulative excess returns to successful bidders for tender offers during 1960 to 1985, by decade.

Trading day interval	All	1960s	1970s	1980s
-10 to +5 (t-stat.)	1.14[a] (2.49)	4.40 (4.02)	1.22 (2.12)	-1.10 (-1.54)
-10 to +20 (t-stat.)	2.04 (3.31)	4.95 (3.52)	2.21 (2.87)	-0.04 (-0.04)
Number of observations	405	106	140	159

Source: Jarrell and Poulsen, Working paper, 1987a.

a. cumulative excess returns in percent

The results of table 3 is consistent with the previous studies reviewed by Jensen & Ruback (1983). The cumulative excess returns to successful bidders for tender offers are statistically significantly positive during 1960s and 1970s. But the results from the 1980's show statistically

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6 Jensen and Ruback, 1983, 47.

insignificant losses to bidders. Jarrell, Brickley and Netter (1988) conclude that acquirers "receive at best modest increases in their stock price, and the winners of bidding contests suffer stock-price declines as often as they do gains[7]."

Unsuccessful bidder returns

In a review of the studies before 1983, bidders earn a weighted average abnormal returns of -1% in tender offers and -5% in mergers around the takeover announcement (See table 2). Jensen & Ruback (1983) also contains results on stock returns of bidding firms around the termination announcements for unsuccessful acquisition attempts and reports generally positive bidder returns.

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[7] Jarrell, G. A., J. A. Brickley and J. M. Netter, 1988, 68.

CHAPTER III

METHODOLOGY

Data

This research covers a period from January 1985 to December 1991. The information about takeovers are obtained from the Fact Books published by the Stock Exchange of Hong Kong Limited (Fact Books 1983-1992), and the Hong Kong Economic Journal Monthly. The details of the announcements of these takeovers have been confirmed or corrected from the daily posts. The announcement date refers to the first date when information disclosed with certainty in the stock market. There are 147 acquisitions for the period from 1986 to 1992 and only six of which are mergers (See Appendix 1). In this study, we will focus on successful tender offers.

To be included in our initial sample, the tender offers must meet the following criteria:

(i) It is a successful tender offer.

(ii) Bidding firm has a listing status on the Hong Kong Stock Exchange before the takeover announcement.

Thirty three tender offers satisfy these criteria. The daily stock returns were obtained from the PACAP.

The following two criteria were applied in screening out the final sample.

(i) Bidding firms must not engage in other takeover and merger activities in the three months prior to an other announcement day.

(ii) Bidding firms must have trading on more than half of the trading days between the estimation period -130 to -30 days.

The first criterion is to reduce the noise created by other corporate events on stock returns. The second criterion makes sure that we have enough data in estimating parameters of the market model.

The final sample consists of thirty one bidding firms which have engaged in successful tender offers between the period from 1986 to 1991 (See Appendix 2) .

Hypothesis To Be Tested

Daily abnormal returns for the bidding firms around the announcement date is zero.

Methodology

The hypothesis examined will be tested by applying event-study methodology. The objective of event study is to assess whether there are any abnormal or excess returns earned by shareholders accompanying specific events. In the past, event studies have been conducted to investigate the announcement effects of mergers and acquisitions e.g. Jensen & Ruback (1983).

In this study, a market model is used to estimate the normal return of the security that would have been achieved

without the event.

The daily normal returns for a sample of N firms are calculated by:

$$R_{it} = \alpha_i + \beta_i R_{mt} + e_{it}$$

where

α, β are parameters of the OLS regression;

R_{it} is the rate of return on the ordinary shares of firm i for day t

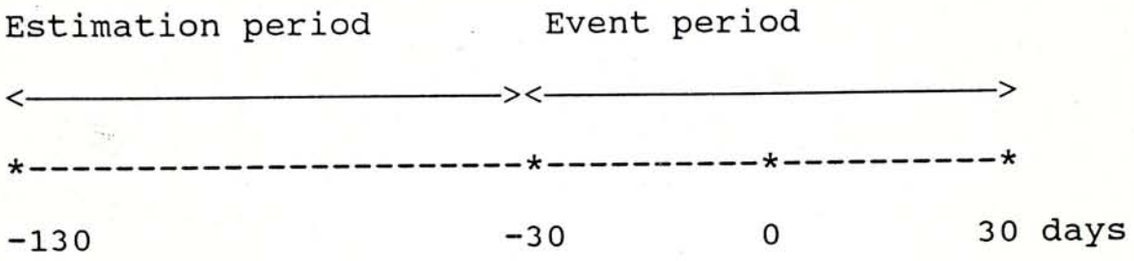
R_{mt} is the market rate of return for day t

e_{it} is the disturbance term of firm i for day t

$\beta_i R_{mt}$ captures the "systematic" shocks which have an impact on all stocks in the market. On the other hand, e_{it} captures the "idiosyncratic" shocks comprising those factors specific to individual stocks. The random error, e_{it}, has a mean of zero and is uncorrelated with R_{it}.

Two market returns are obtained from the PACAP. Therefore, two data sets are prepared. One data set will use the value-weighted market return with cash dividend reinvested as the market return. Another data set will use the equally weighted average market return with cash dividends reinvested as the market return. Then, ordinary least squares coefficients of the market model regression using different market returns are estimated over the period from t=-130 to t=-31 relative to the date of the initial announcement date, t=0.

For each firm, a total of 100 days before the takeover event period is used to estimate the parameters of the market model; the event period itself is defined to be from 30 days before to 30 days after the announcement day. That is,



The estimated abnormal returns of firm i during the event period (AR_{it}) is the difference between the estimated normal returns and the observed returns:

$$AR_{it} = R_{it} - (\hat{\alpha}_i + \hat{\beta}_i R_{mt}) \qquad (1)$$

where

$\hat{\alpha}$ and $\hat{\beta}$ are best linear estimates taken from the data.

The cross-section average abnormal return (AAR_t) is calculated by

$$AAR_t = 1/N \sum_{i=1}^{N} AR_{it} \qquad (2)$$

The cumulative average abnormal returns ($CAAR_t$) is calculated by

$$CAAR_t = AAR_t + CAAR_{t-1} \qquad (3)$$

where N = number of firms in the study

We use t-test to determine the significance of the abnormal returns and cumulative abnormal returns.

$$t_1 = (AR_t) \;/\; [S(AR_t)/\sqrt{D}] \qquad (4)$$

$$t_2 = (CAAR_t) \;/\; [S(AR_t)/\sqrt{D}] \qquad (5)$$

where D is the number of observations to form $CAAR_t$ and $S(AR_t)$ is the standard deviation of AR_t for the estimation period.

CHAPTER IV

EMPIRICAL RESULTS

An Overview

The results of this study are summarized in Figure 1 and Figure 2. Figure 1 measures the abnormal return to stockholders of these bidding firms in each of 60 days (44 trading days) relative to the day of announcement of takeover. It shows that the abnormal returns based on both value-weighted and equally-weighted market returns vary around zero over the period. Before the announcement date, there are larger proportion of abnormal returns over the time which show positive values especially from the trading days from -18 to -14. The cumulative abnormal return based on equally-weighted market (value-weighted market) return for this period is 3.228% (3.459%). The gradient is 0.646 (0.692). That is why the cumulative abnormal returns shown in Figure 2 increase sharply during the period from days -18 to -14.

During the period from days -13 to -2, the abnormal returns appear to fluctuate randomly around zero over the period. Thus, the cumulative abnormal return based on equally-weighted market (value-weighted market) return for this period is -0.335% (0.339%). The gradient is -0.028 (0.028). It can be seen in Figure 2 that the slopes of cumulative returns against the time in Figure 2 become flat.

Figure 1: Abnormal returns over days

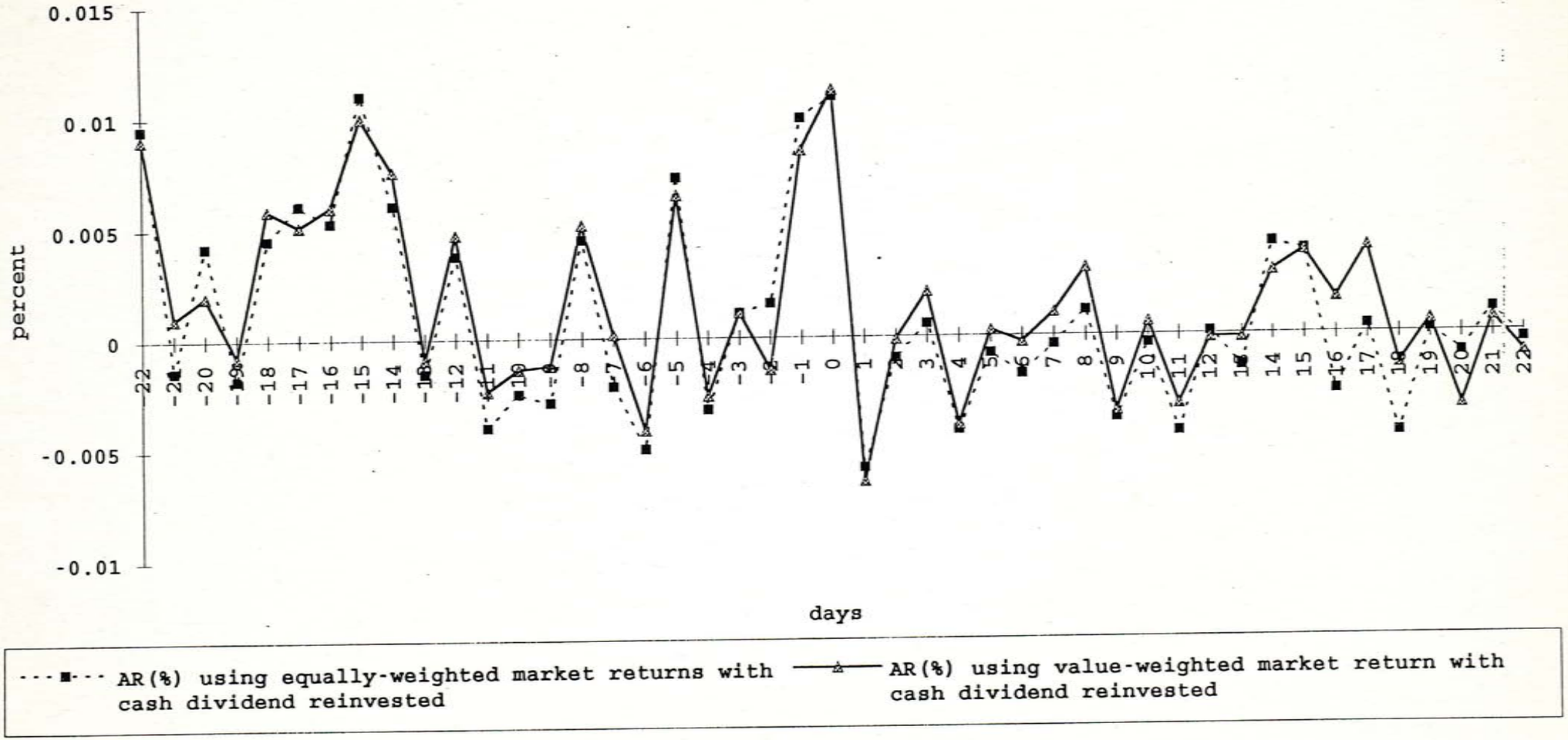
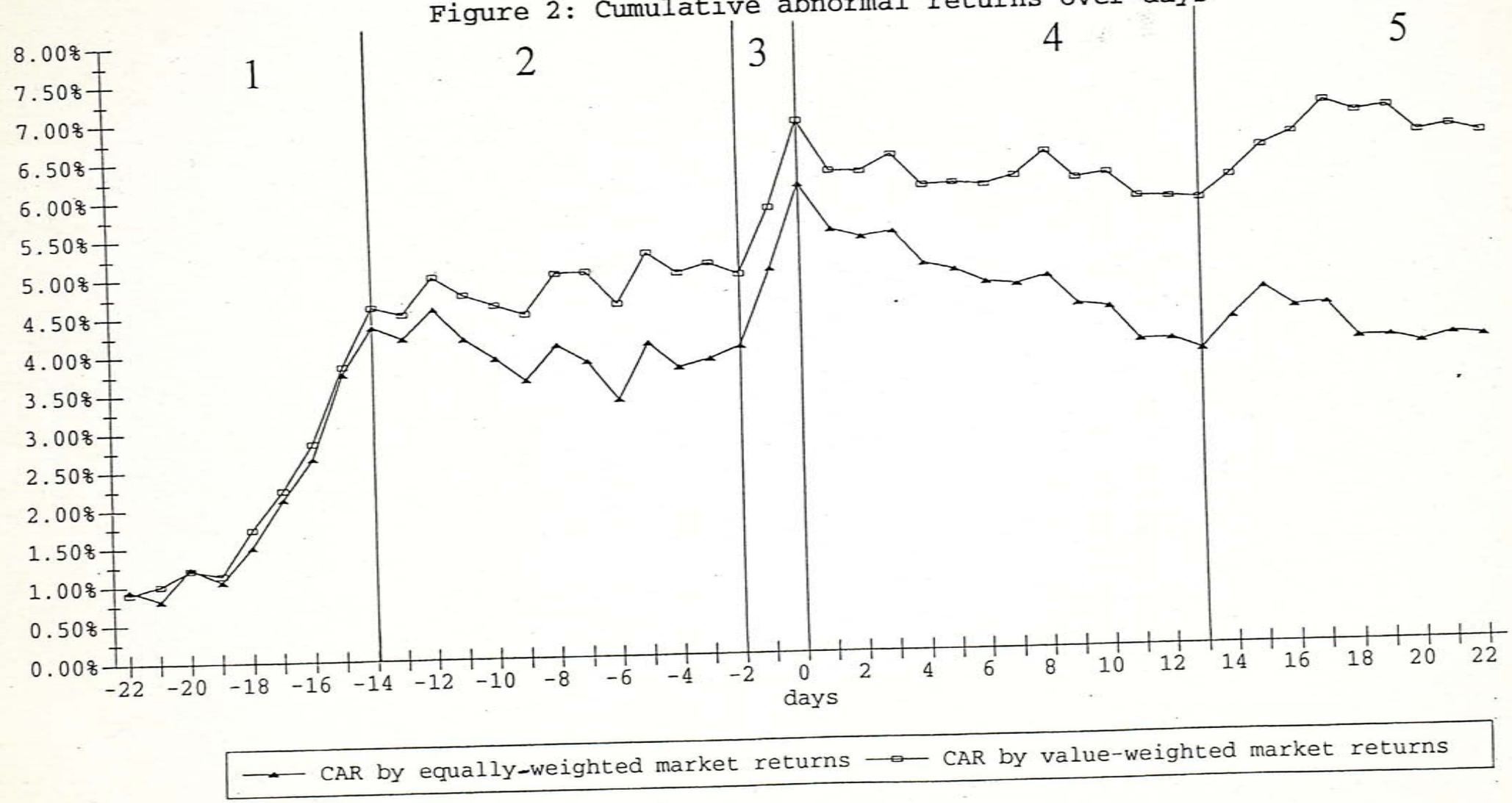


Figure 2: Cumulative abnormal returns over days



During the period from days -1 to 0, there are highly positive abnormal returns. The cumulative abnormal return for equally weighted market (value-weighted market) accounting for this period is 2.064% (1.951%) while the gradient is 1.032 (0.976). For this period, there are relatively large abnormal return earned by stockholders of the bidding firms. The average abnormal return for this period accounting for equally-weighted market return (value-weighted market returns) is 1.032% (0.9755) which is 11.9 (3.3) times larger than the average abnormal return from days -22 to +22. The large relative magnitude of these abnormal return can be highlighted in figure 2 where they are indicated by the pronounced "spikes" during the period from day -1 to day 0.

During the period from days 1 to 22, the cumulative abnormal returns for equally-weighted market (value-weighted market) is -2.131% (-0.33%). The gradient is -0.097 (-0.015) and so the slope of cumulative abnormal returns shown in Figure 2 seems to be a horizontal line but slightly in a downward direction.

Tables 1 and 2 in Appendix 3 and 4 present abnormal returns and cumulative abnormal returns for the bidding firms over the period from trading days -22 to 22. Over the period, only the abnormal return of the announcement day is statistically significant.

Interpretation

Stock price movement

The plots of the abnormal returns (Figure 1) and cumulative abnormal returns (Figure 2) give an overall view of the abnormal returns to stockholders around the time of announcement of takeover. It is not sufficient for detailed analysis of the results for the hypothesis testing. In order to test the hypothesis whether there is no impact of takeovers on the stock return for the bidder firms, we have to measure the statistical significance of the cumulative abnormal returns to stockholders of bidder firms for selected holding periods. The following table presents the t-statistics and the cumulative abnormal returns for the five holding periods.

Table 4

Cumulative Abnormal Returns for Selected Holding Periods

HOLDING PERIOD	DAYS IN HOLDING PERIOD	EQ. WEIGHTED CAR	T-STAT	VAL. WEIGHTED CAR	T-STAT
1	t_{-22} to t_{-14}	4.34%	3.85	4.59%	4.04
2	t_{-23} to t_{-2}	-0.34%	-0.51	0.34%	0.51
3	t_{-1} to t_{0}	2.06%	1.09	1.95%	1.01
4	t_{+1} to t_{+13}	-2.23%	-3.56	-1.10%	-1.78
5	t_{+14} to t_{+22}	0.10%	0.15	0.77%	1.08

From the table, there is significant positive abnormal return in the pre-announcement period 1. There is 4.34% (4.59%) cumulative abnormal returns for equally weighted market return (value-market return) with a t-statistic of 3.85 (4.04). For the next period, there is negative abnormal returns with cumulative negative returns of -0.34% (0.34%) and t-statistic of -0.51 (0.51). At the announcement date, there is more than 1% significant abnormal returns. The observation from this result is that the Hong Kong stock market is generally efficient with respect to information of takeovers. After the announcement date, there is persistent negative abnormal return through the post-announcement holding period 4 but there is a slight increase in abnormal returns in period 5.

Information leakage

In our study, the tender offer bid is announced on day 0 and published in the daily post on day 1. In table 4, there is a 2.06% (1.95%) cumulative abnormal return with a t-statistic of 1.09 (t=1.01) earned in period 3 using equally weighted market return (value-weighted market return).

This shows that the market reaction to a tender offer occurs before the announcement date (t=0). Excess returns occur on the day before announcement to the announcement day when the information is known with certainty. We argue that this pre-event behaviour is due to the leakage of information regarding the impending tender offer.

Hubris hypothesis

Hubris hypothesis predicts that there is a stock price decline of bidding firms on announcement of a bid. However, as argued by Roll (1986), this decrease in price may not be completely reflected in a market price decline because of contaminating information in a bid. That is, when a takeover announcement is made and the bidding itself signals a small upward revision in the market's estimate of the bidding firm's current assets and this might be not completely offset by the prospect of paying too much for the target. Moreover, the bid may have been already anticipated due to the disclosure either in annual reports, or specific announcements to the financial press, or in association with other corporate policy changes .

Therefore, the actual returns was in a smaller absolute value of an announcement effect than we expected. In addition, bidders are usually much larger than targets, the effect of a takeover bid may be relatively insignificant in a bidding firm and this may be too small to be reliably reflected in prices. In our study, over the whole event period (day -30 to +30), no significant abnormal returns are observed except on the announcement day.

Mode of payment

According to the bidder overvaluation hypothesis (Myers and Majluf 1984 and Krasker 1986), if the management of the bidding firm has superior inside information that the existing assets of the firm are overvalued (undervalued), they are more likely to undertake a stock-financed (cash-financed) acquisition. Astute market participants, on the other hand, will interpret a stock-financed (cash-financed) acquisition as a negative (positive) news and incorporate this information into bidder stock prices along with the estimated value of the acquisition. As a result, share price reaction to the announcement of a cash financed acquisition will reflect both potential gains from the acquisition and the positive signalling effect. Moreover, according to wealth redistribution hypothesis, a common stock offer may lead to wealth transfer from stockholders to bondholders, implying a fall in stock prices [Eger (1983), Travlos (1987)]. Thus, other things being equal, the returns to the shareholders

of a bidding firm will be higher in cash offer than in a common stock exchange offer. Moreover, according to free cash flows theory, firms endowed with free cash flows are more likely to undertake value decreasing takeovers and if the firm undertake a cash offer, it gives out a signal that the firm is paying out its cash and the potential risk of agency problem is reduced.

There are a total of thirty bids in our sample. Twenty four of them used cash financing, two of them used stock financing and another four used a combination of two. As mentioned before, since most of the bidding firms in our sample used cash financing and there may display more positive bidder stock price reactions.

Number of bidders

With reference to the Fact Books, there are only two hostile takeovers during the period from 1985 to 1992.

Obviously, such hostile takeovers are not so competitive and common in the Hong Kong stock market. Besides, multiple bids are rarely observed in Hong Kong. Therefore, according to the hypothesis that there is an increase in the level of competitiveness resulting in a negative impact on the shareholder gains of bidding firms [Roll 1986], the potential gains of bidding firms should be higher in Hong Kong.

CHAPTER V

LIMITATIONS AND RECOMMENDATIONS

Limitations

This study includes only the takeovers from 1985 to 1991, a total of 31 bidding firms are included in the sample. The results may be biased due to the small size of the sample. Moreover, bidding firms are chosen in the sample if they have not been engaged in other takeovers and mergers activities in three months period prior to the announcement day. It may not be long enough to eliminate the effects of other corporate activities on stock returns. In addition, our study excludes those suspended trading days from the period and therefore, the abnormal returns during the event period may be deteriorated by the suspended trading. It is because according to the Hong Kong Code on Takeovers and Mergers, "at the time of announcing that a takeover approach has been received, the offeree company should seek the suspension of dealing in its shares for one full trading day ..." [Hong Kong Code on Takeovers and Mergers (1987), practical note no.1]. Sometimes, there may need to have a suspension of dealings for a period greater than one full trading day. In addition, Roll (1986) points out that there may be an announcement of intended

acquisition[8] prior to the announcement of a formal acquisition. Therefore, our results may also be biased by the potential measurement problems.

Recommendations

The insignificant gains to bidders revealed in the past studies and post outcome abnormal returns for tender offers and mergers are almost uniformly negative[9] and is relatively large in magnitude. Our findings also suggests that bidding firms earn insignificant gains from takeovers. This leads one to wonder why firms are interested in acquiring other firms. However, there are 22 takeovers taking place in 1992 and this seems that acquisition activities continue to increase. How can we explain the phenomenon that managers continue to invest time and their companies' resources in making acquisitions? We may need to investigate other factors to explain acquisition behaviour. This includes an investigation into the agency problem. Further studies on the overbidding hypothesis and free cash flows hypothesis should be made. We suggest to investigate the incentive compensation of managers, monitoring controls by board of directors and a test on the second and third predictions of hubris hypothesis i.e. a price increase in stock price of a bidding firm on abandoning a bid or on losing a bid; and a stock price decline of a bidding firm

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[8] For details, please see Roll, 1986, 208-209.

[9] Jensen an Ruback, 1983, table 4, 21.

on actually winning a bid.

APPENDIX 1

DESCRIPTION OF CHANGES IN CORPORATE STRUCTURES (1986-1992)

	Takeovers	Merger	Reorganization	Demerger	Total
1986	24	2	0	0	26
1987	29	1	4	1	35
1988	25 (3)	1	15	0	41
1989	10	0	0	0	10
1990	16	2	0	0	18
1991	15	0	0	0	15
1992	22	0	0	0	22

(): no. of takeovers which were failed.

Sources : Fact Books (1986-1992)

Appendix 2
Sample of 31 successful bids

	Target Firm	Bidding Firm	Announcement Date
1	Hong Kong Electric Holdings Ltd.	Hutchison Whampoa Ltd.	22-Jan-85
2	Wheelock Marden	Wharf Holdings [The Wharf (Holdings) Ltd.*]	11-Feb-85
3	International City Holdings Ltd.	Hutchison Whampoa Ltd.	5-Oct-85
4	International City Holdings Ltd.	Hong Kong Electric Holdings Ltd.	5-Oct-85
5	Wing On Bank	Hang Seng Bank	19-Dec-85
6	Impala Securities Ltd.	Impala Pacific Corporation Ltd.	21-Apr-86
7	Paliburg Investment Ltd. [Paliburg International Holdings Ltd.]	Century City Holdings Ltd. [Century City International Holdings Ltd.]	17-Mar-86
8	Lane Crawford Holdings Ltd. [Lane Crawford International Ltd.]	World International (Holdings) Ltd.	3-Oct-86
9	Kok Tai Enterprises Ltd. [MKI Corporation Ltd.]	Century City Holdings Ltd. [Century City International Holdings Ltd.]	21-Jan-87
10	Crocodile Garments Ltd.	Lai Sun Garment Company Ltd. [Lai Sun Development Co. Ltd.]	14-Sept-87
11	Wah Kwong Properties Ltd.	Asia Securities International Ltd.	11-Sept-87
12	Local Property Co. Ltd. [Grand Hotel Holdings Ltd.]	Amoy Properties Ltd.	29-Apr-88

13	Hong Kong Optical Co. Ltd. [Innovisions Holdings Ltd.]	Dickson Concepts Ltd.	20-Jul-88
	Target Firm	Bidding Firm	Announcement Date
14	Green Island Cement (Holdings) Ltd.	Cheung Kong (Holdings) Ltd.	30-Oct-88
15	Tek Lee Finance and Investment Corporation Ltd.	Lee Hing Development Ltd.	24-Nov-88
16	IBI Asia	First Pacific Company Ltd.	6-Jan-89
17	Singapore Hong Kong Properties Investment Ltd.	Asia Securities International Ltd.	28-Jan-89
18	Kwong Sang Hong Ltd. [Kwong Sang Hong International Ltd.]	Cheung Kong (Holdings) Ltd.	27-Feb-89
19	Ontrade International Ltd. [Shun Ho Construction (Holdings) Ltd.]	Standard-Lloyds (Holdings) Ltd. [Shun Ho Resources Holdings Ltd.]	2-Mar-89
20	THL International Ltd. [Seapower Resources International Ltd.]	Blissea Consortium Company Ltd. [Seabase International Holdings Ltd.]	29-May-89
21	Rose Knitting Company Ltd. [Rose International Ltd.]	Huey Tai Investment Co. Ltd. [Huey Tai International Ltd.]	18-Sept-89
22	Polly Peck Far East Ltd. [USI Holdings Ltd.]	Sun Hung Kai Properties	6-Nov-89
23	San Tai Electrical Company Ltd. [Sai Tai Manufacturing Ltd.]	Allied T.W. Ltd. [Allied Industries International Ltd.]	2-Apr-90

24	Teletech International Holdings Ltd.	Swilynn International Holdings Ltd.	11-Jul-90
	Target Firm	Bidding Firm	Announcement Date
25	Jademan (Holdings) Ltd.	Sing Tao Holdings Ltd.	19-Sept-90
26	E.D. & F Man Pacific (Holdings) Ltd. [Pacpo Holdings Ltd.]	Pacific Concord Holding Ltd.	28-Aug-90
27	Yu Hing Holdings Ltd. [Bo Shing Real Estates Ltd.]	Tse Sui Luen Jewellery (International) Ltd.	31-Oct-90
28	Paramount Development Ltd. [Paramount Printing Group Ltd.]	Santai Electrical Co. Ltd. [Santai Manufacturing Ltd.]	12-Nov-90
29	Allied T.W. Ltd. [Allied Industries International Ltd.]	Allied Group Ltd.	4-Feb-91
30	Yu Hing Holdings Ltd. [Bo Shing Real Estates Ltd.]	Emperor Investment Ltd. [Emperor International Holdings Ltd.] Industries International Ltd.]	19-Jun-91
31	Pacpo Holdings Ltd.	Pacific Concord Holdings Ltd.	30-Dec-91

* [ ] is the present name of the company which is confirmed by 1992 PACAP.

APPENDIX 3

ABNORMAL RETURNS AND CUMULATIVE ABNORMAL RETURNS OVER DAYS USING EQUALLY WEIGHTED MARKET RETURNS WITH CASH DIVIDEND REINVESTED

Day	AR	CAR	t1	t2
-22	0.9525%	0.9525%	1.1396	1.1396
-21	-0.1428%	0.8097%	-0.1010	0.5731
-20	0.4196%	1.2293%	0.3258	0.9545
-19	-0.1818%	1.0476%	-0.1820	1.0487
-18	0.4509%	1.4984%	0.3058	1.0163
-17	0.6073%	2.1057%	0.4268	1.4801
-16	0.5296%	2.6353%	0.3887	1.9344
-15	1.0968%	3.7321%	0.6158	2.0955
-14	0.6042%	4.3363%	0.5824	4.1799
-13	-0.1566%	4.1797%	-0.2061	5.4998
-12	0.3750%	4.5547%	0.5401	6.5593
-11	-0.4015%	4.1532%	-0.5216	5.3952
-10	-0.2514%	3.9017%	-0.3889	6.0355
-9	-0.2915%	3.6102%	-0.9496	11.7599
-8	0.4455%	4.0557%	0.5106	4.6487
-7	-0.2187%	3.8370%	-0.3584	6.2868
-6	-0.5014%	3.3355%	-1.1189	7.4431
-5	0.7250%	4.0606%	1.5785	8.8407
-4	-0.3244%	3.7362%	-0.7206	8.2998
-3	0.1100%	3.8462%	0.2290	8.0083
-2	0.1549%	4.0011%	0.3389	8.7543
-1	0.9838%	4.9849%	1.5270	7.7371
0	1.0805%	6.0653%	2.2725	12.7570
1	-0.5906%	5.4747%	-1.1050	10.2428
2	-0.0984%	5.3763%	-0.2411	13.1722
3	0.0563%	5.4327%	0.1235	11.9136
4	-0.4229%	5.0098%	-1.2778	15.1387
5	-0.0792%	4.9306%	-0.1810	11.2587
6	-0.1730%	4.7576%	-0.4350	11.9636
7	-0.0423%	4.7153%	-0.0656	7.3178
8	0.1095%	4.8248%	0.2566	11.3104
9	-0.3752%	4.4496%	-0.7724	9.1595
10	-0.0410%	4.4085%	-0.1468	15.7711
11	-0.4378%	3.9708%	-1.2942	11.7396
12	0.0091%	3.9799%	0.0383	16.8027
13	-0.1467%	3.8331%	-0.3991	10.4267
14	0.4096%	4.2427%	1.1653	12.0707
15	0.3758%	4.6185%	1.1426	14.0411
16	-0.2570%	4.3615%	-0.9934	16.8569
17	0.0349%	4.3964%	0.0944	11.8793
18	-0.4522%	3.9443%	-1.4172	12.3622
19	0.0138%	3.9580%	0.0413	11.8806
20	-0.0919%	3.8662%	-0.3263	13.7275
21	0.1032%	3.9694%	0.2671	10.2681
22	-0.0358%	3.9336%	-0.3425	37.6517

APPENDIX 4

ABNORMAL RETURNS AND CUMULATIVE ABNORMAL RETURNS OVER DAYS USING VALUE WEIGHTED MARKET RETURNS WITH CASH DIVIDEND REINVESTED

Day	AR	CAR	t1	t2
-22	0.9076%	0.9076%	1.1474	1.1474
-21	0.0991%	1.0066%	0.1078	1.0953
-20	0.1999%	1.2066%	0.1632	0.9846
-19	-0.0764%	1.1302%	-0.0737	1.0909
-18	0.5874%	1.7175%	0.3964	1.1592
-17	0.5129%	2.2305%	0.3458	1.5036
-16	0.6014%	2.8319%	0.4377	2.0612
-15	0.9981%	3.8299%	0.5467	2.0981
-14	0.7592%	4.5891%	0.7604	4.5967
-13	-0.0931%	4.4960%	-0.1213	5.8603
-12	0.4713%	4.9674%	0.6506	6.8571
-11	-0.2387%	4.7286%	-0.2876	5.6958
-10	-0.1396%	4.5890%	-0.2300	7.5615
-9	-0.1240%	4.4650%	-0.4073	14.6657
-8	0.5129%	4.9780%	0.5802	5.6309
-7	0.0164%	4.9943%	0.0286	8.7371
-6	-0.4163%	4.5780%	-0.9073	9.9768
-5	0.6446%	5.2226%	1.6280	13.1912
-4	-0.2619%	4.9607%	-0.6302	11.9382
-3	0.1130%	5.0737%	0.2179	9.7824
-2	-0.1454%	4.9283%	-0.2567	8.7003
-1	0.8410%	5.7693%	1.2599	8.6430
0	1.1100%	6.8793%	2.3557	14.5995
1	-0.6511%	6.2282%	-1.2217	11.6852
2	-0.0121%	6.2161%	-0.0289	14.9050
3	0.2022%	6.4183%	0.4926	15.6392
4	-0.3988%	6.0195%	-1.1739	17.7192
5	0.0230%	6.0425%	0.0512	13.4364
6	-0.0318%	6.0107%	-0.0765	14.4540
7	0.1032%	6.1139%	0.1591	9.4263
8	0.3043%	6.4182%	0.7004	14.7729
9	-0.3422%	6.0760%	-0.7481	13.2822
10	0.0574%	6.1334%	0.2227	23.7880
11	-0.3163%	5.8171%	-0.9632	17.7148
12	-0.0173%	5.7999%	-0.0744	25.0146
13	-0.0183%	5.7815%	-0.0564	17.7647
14	0.2833%	6.0648%	0.7853	16.8143
15	0.3727%	6.4374%	1.0820	18.6920
16	0.1598%	6.5972%	0.6596	27.2336
17	0.3910%	6.9882%	1.0082	18.0208
18	-0.1411%	6.8471%	-0.3583	17.3855
19	0.0564%	6.9035%	0.1643	20.1182
20	-0.3284%	6.5751%	-1.2580	25.1865
21	0.0666%	6.6417%	0.1640	16.3560
22	-0.0931%	6.5486%	-0.9364	65.8739

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